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| APPLICATION NO.                                              | FILING DATE          | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |
|--------------------------------------------------------------|----------------------|----------------------|-------------------------|-----------------|
| 10/664,234                                                   | 09/17/2003           | Yijun Ruan           | 069354.0102             | 3948            |
| 6449 7                                                       | 6449 7590 10/11/2005 |                      | EXAMINER                |                 |
| ROTHWELL, FIGG, ERNST & MANBECK, P.C.<br>1425 K STREET, N.W. |                      |                      | O'FARRELL, THOMAS JOHN  |                 |
| SUITE 800                                                    | 21, IN.W.            | •                    |                         | PAPER NUMBER    |
| WASHINGTON, DC 20005                                         |                      |                      | 1634                    |                 |
|                                                              |                      |                      | DATE MAILED: 10/11/2005 |                 |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Application No.                                                                                                                                                                                                | Applicant(s)                                                                       |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10/664,234                                                                                                                                                                                                     | RUAN ET AL.                                                                        |  |  |  |  |
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Examiner                                                                                                                                                                                                       | Art Unit                                                                           |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Thomas J. O'Farrell                                                                                                                                                                                            | 1634                                                                               |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply                                                                                                                                                                                                                                                                                                                                                                                                                                                      | pears on the cover sheet with the                                                                                                                                                                              | e correspondence address                                                           |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION  36(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS from the country and will expire SIX (6) MONTHS from the country application to become ABANDO | ON. timely filed om the mailing date of this communication. NED (35 U.S.C. § 133). |  |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 1)⊠ Responsive to communication(s) filed on <u>17 S</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                             | September 2003.                                                                                                                                                                                                |                                                                                    |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | s action is non-final.                                                                                                                                                                                         |                                                                                    |  |  |  |  |
| 3)☐ Since this application is in condition for allowa                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is                                                                                                |                                                                                    |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| Disposition of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| . 4)⊠ Claim(s) <u>1-43</u> is/are pending in the application.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 5) Claim(s) is/are allowed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 6)☐ Claim(s) is/are rejected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ·                                                                                                                                                                                                              |                                                                                    |  |  |  |  |
| 7)☐ Claim(s) is/are objected to.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 8) Claim(s) <u>1-43</u> are subject to restriction and/or                                                                                                                                                                                                                                                                                                                                                                                                                                                           | election requirement.                                                                                                                                                                                          |                                                                                    |  |  |  |  |
| Application Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 9) The specification is objected to by the Examine                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | er.                                                                                                                                                                                                            |                                                                                    |  |  |  |  |
| 10) The drawing(s) filed on is/are: a) acc                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                | e Examiner.                                                                        |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| Replacement drawing sheet(s) including the correct                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 11) ☐ The oath or declaration is objected to by the E                                                                                                                                                                                                                                                                                                                                                                                                                                                               | xaminer. Note the attached Offi                                                                                                                                                                                | ce Action or form PTO-152.                                                         |  |  |  |  |
| Priority under 35 U.S.C. § 119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| │<br>│ 12)☐ Acknowledgment is made of a claim for foreigr                                                                                                                                                                                                                                                                                                                                                                                                                                                           | n priority under 35 U.S.C. § 119                                                                                                                                                                               | (a)-(d) or (f).                                                                    |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 1. Certified copies of the priority documents have been received.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No.                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| * See the attached detailed Office action for a list                                                                                                                                                                                                                                                                                                                                                                                                                                                                | of the certified copies not recei                                                                                                                                                                              | ved.                                                                               |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                |                                                                                    |  |  |  |  |
| Attachment(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | _                                                                                                                                                                                                              |                                                                                    |  |  |  |  |
| 1) Notice of References Cited (PTO-892)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4) Interview Summa<br>Paper No(s)/Mail                                                                                                                                                                         |                                                                                    |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08                                                                                                                                                                                                                                                                                                                                                                                           | C                                                                                                                                                                                                              | al Patent Application (PTO-152)                                                    |  |  |  |  |
| Paper No(s)/Mail Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6) Other:                                                                                                                                                                                                      | ··· · · · · · · · · · · · · · · · · ·                                              |  |  |  |  |
| U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05) Office A                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ction Summary                                                                                                                                                                                                  | Part of Paper No./Mail Date 55                                                     |  |  |  |  |

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## **DETAILED ACTION**

## Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-24, drawn to oligonucleotides and vectors, classified in class 536, subclass 23.1, and class 435, subclass 320.1.
  - Claims 25-41, drawn to methods of preparing oligonucleotides and gene mapping, classified in class 435, subclass 91.4, and class 435, subclass 6.
  - III. Claim 42, drawn to methods of recovering full-length cDNA, classified in class 435, subclass 91.1.
  - IV. Claim 43, drawn to methods for quantifying transcriptional activity of a gene, classified in class 435, subclass 6.
- 2. This application contains claims directed to the following patentably distinct species of the claimed invention:
  - a) restriction enzymes recited in instant claim 9 of group 1.
  - b) restriction enzymes recited in instant claim 35 of group 1.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Specifically, applicant should elect one of the restriction

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enzymes recited in claim 9 of group 1 and one of the restriction enzymes recited in claim 35 of group 1.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The inventions are distinct, each from the other because of the following reasons:

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1. Inventions group 2-4 and 1 are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the oligonucleotides of group 1 can be made by chemical synthesis. In addition, art relating to the methods of preparing the oligonucleotides of group 1 that are recited in groups 2-4 would not necessarily provide structural information on the oligonucleotides themselves, and vice-versa.

2. Inventions of groups 2-4 are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, different functions, or different effects. The inventions of group 2 involve the production of ditags by enzymatic manipulation, the inventions of group 3 involve the recovering of a ditag from a cDNA library, sequencing it, and recovering the full-length cDNA corresponding to the ditag from the library, while the inventions of group 4 involve recovering a ditag from a cDNA library, sequencing it, and determining the frequency of the sequenced ditag which corresponds to the transcriptional activity of the gene.

Therefore, the different inventions have different modes of operation, different functions, or different effects.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

- 4. Because these inventions are distinct for the reasons given above and the search required for each group is not coextensive, restriction for examination purposes as indicated is proper.
- 5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
- 6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
- 7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas O'Farrell whose telephone number is (571) 272-8782. The examiner can normally be reached Monday-Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones, can be reached on (571) 272-0745. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

9/29/05

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